

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the instant application:

**Listing of Claims:**

1. (Currently Amended) A method for evaluating system behavior of an application domain within a grid environment comprising the steps of:

identifying a host software object operating within a computing resource of said application domain, said computing resource within one grid of said grid environment;

~~attaching~~ associating a ghost software object located within said one grid to said host software object, wherein said ~~attached~~ associated ghost software object replicates actions of said host software ~~actions~~ executed within said one grid, and wherein said associated ghost software object records said replicated actions;

transferring said host software object from said computing resource in said one grid within said grid environment to another computing resource, said another resource within another grid within said grid environment; and,

responsive to transferring said host object to said another grid, transferring said ~~attached~~ associated ghost software object from said one grid to said another grid, wherein said ~~linked~~ associated ghost software object replicates said host software actions within said another grid, and wherein said associated ghost software object records said replicated actions in said another grid.

2. (Currently Amended) The method of claim 1, further comprising the step of:

determining usage statistics for said application domain based at least in part upon said recorded actions[[:]].

3. (Cancelled)
4. (Original) The method of claim 2, further comprising the step of:  
optimizing performance of said application domain based upon said usage statistics.
5. (Original) The method of claim 1, wherein said replicated actions are passive actions, said method further comprising the step of:  
preventing said replicated actions from operationally executing in said grid environment.
6. (Previously Presented) The method of claim 1, further comprising the steps of:  
determining a location for logging data that is external to said associated ghost software object; and,  
conveying said recorded replicated actions to said determined location.
7. (Currently Amended) The method of claim 1, further comprising the steps of:  
disassociating said ~~attached~~ associated ghost software object from said host software object; and,  
~~reattaching~~ re-associating said ghost software object to a different host software object within a same one of said grids as said ~~dissassociated~~ disassociated ghost software object.
8. (Currently Amended) The method of claim 1, further comprising the steps of:  
cloning said ~~attached~~ associated ghost software object to create a cloned ghost object; and,

~~attaching~~ associating said cloned ghost object to a different host software object within a same one of said grids as said cloned ghost object.

9. (Currently Amended) The method of claim 1, further comprising the steps of:  
selecting a plurality of host software objects within said application domain; and,  
for each said selected host software object, repeating said ~~attaching~~ associating step, said replicating step, said recording step, and transferring steps.

10. (Currently Amended) A computer implemented system for logging application domain information within a grid environment comprising:

an application domain, wherein said application domain comprises a plurality of computing resources located in a plurality of different grids in said grid environment for executing actions of at least one host software object,

wherein different ones of said executed actions are executed within different grids of said grid environment by transferring said at least one host software object among said different grids, and

wherein said application domain ~~attaches~~ associates at least one ghost agent located in one of said different grid to said at least one host software object operating within said one different grid, wherein said at least one ghost agent is configured to replicate and record said executed actions of said associated host software object in said one grid, and wherein in response to transferring said associated host software object from one computing resource in one grid of said grid environment to another computing resource in ~~[[a]]~~ another grid of said grid environment, said ~~attached~~ associated ghost agent is also transferred from said one grid to said another grid, wherein said ~~linked~~ associated ghost software object replicates said host software actions within said another grid, and wherein said associated ghost software object records said replicated actions in said another grid.

11. (Previously Presented) The system of claim 10, wherein said at least one host software object comprises a plurality of host software objects, and wherein said at least one ghost agent comprises a plurality of ghost agents.

12. (Previously Presented) The system of claim 11, said application domain further comprising:

an application domain data store configured to receive messages from said ghost agents.

13. (Previously Presented) The system of claim 11, said application domain further comprising:

an application analyzer configured to analyze application-specific data gathered by said ghost agents.

14. (Currently Amended) A computer-readable storage medium having stored thereon, a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of:

recording in a ghost log of a ghost agent ~~attached~~ associated to a host software object application-specific activities performed by said host software object operating in computing resources of different grids of a grid environment, wherein said host software object is transferred between said different grids to execute at least one of said activities ~~activites~~;

identifying said ghost agent to components within said grid environment using a ghost identifier of said ghost agent; and,

managing interactions between said ghost agent and said grid environment using a ghost controller of said ghost agent, wherein in response to said transfer of said host

software object from one grid to another grid in said grid environment, said ghost controller transfers said ghost agent from said one grid to said another grid within said grid environment.

15. (Cancelled)

16. (Currently Amended) The storage medium of claim 14, further comprising code sections for:

disassociating said ~~attached~~ associated ghost agent from said host software object; and,

~~reattaching~~ re-associating said disassociated ghost agent to a different host software object in a same one of said grids as said disassociated ghost agent.

17. (Currently Amended) A computer-readable storage medium having stored thereon, a computer program having a plurality of code sections, said code sections executable by a machine for causing the machine to perform the steps of:

identifying a host software object operating within a computing resource of an application domain, said computing resource within one grid of said grid environment;

~~attaching~~ associating a ghost software object located within said one grid to said host software object, wherein said ~~attached~~ associated ghost software object replicates actions of said host software ~~actions~~ executed within said one grid, and wherein said associated ghost software object records said replicated actions;

transferring said host software object from said computing resource in said one grid within said grid environment to another computing resource, said another resource within another grid within said grid environment; and,

responsive to transferring said host object to said another grid, transferring said ~~attached~~ associated ghost software object from said one grid to said another grid, wherein

said ~~linked~~ associated ghost software object replicates said host software actions within said another grid, and wherein said associated ghost software object records said replicated actions in said another grid.

18. (Previously Presented) The computer-readable storage medium of claim 17, further comprising the step of:

determining usage statistics for said application domain based at least in part upon said recorded actions.

19. (Cancelled)

20. (Previously Presented) The computer-readable storage medium of claim 18, further comprising the step of:

optimizing performance of said application domain based upon said usage statistics.

21. (Previously Presented) The computer-readable storage medium of claim 17, wherein said replicated actions are passive actions, said method further comprising the step of:

preventing said replicated actions from operationally executing in said grid environment.

22. (Previously Presented) The computer-readable storage medium of claim 17, further comprising the steps of:

determining a location for logging data that is external to said associated software object; and,

conveying said recorded replicated actions to said determined location.

23. (Currently Amended) The computer-readable storage medium of claim 17, further comprising the steps of:

disassociating said ~~attached~~ associated ghost software object from said host software object; and,

~~reattaching~~ re-associating said ghost software object to a different host software object within a same one of said grids as said ~~dissassociated~~ disassociated ghost software object.

24. (Currently Amended) The computer-readable storage medium of claim 17, further comprising the steps of:

cloning said ~~attached~~ associated ghost software object to create a cloned ghost software object; and,

~~attaching~~ associating said cloned ghost object to a different host software object within a same one of said grids as said cloned ghost object.

25. (Currently Amended) The computer-readable storage medium of claim 17, further comprising the steps of:

selecting a plurality of host software objects within said application domain; and,  
for each said selected host software object, repeating said ~~attaching~~ associating step, said replicating step, said recording step, and said transferring steps.

26. (Cancelled).